

REMARKS

New claims 38-72 have been added, and claims 1-37 have been cancelled. These new claims do not add any new matter. For example, independent new claims 38 and 60 are supported are supported on page 7, lines 15-17 and Figure 5 and its accompanying text, among other places. Dependent claims 39-57 and 61-69 are supported by original dependent claims 2-19 and 21-37, among other places. Dependent claims 57 and 70 are supported on page 11, lines 19-25, among other places. Dependent claims 58 and 71 are supported on page 15, lines 22-25, among other places. Dependent claims 59 and 72 are supported on page 19, lines 6-8, among other places. Claims 38-72 remain pending.

The Examiner rejected claims 1-9, 13-23, and 26-28 under 35 U.S.C. §103(a) as being unpatentable over Culbert (US 5,838,968) in view of Judge et al. (US 6,430,570). Additionally, claims 10-12 and 24-25 are rejected under 35 U.S.C. §103(a) as being unpatentable over Culbert in view of Judge et al and in further view of Mayle et al. (US 6,182,022). The Examiner's rejections are respectfully traversed as follows.

New claim 38 is directed towards a "method for managing resource usage." Claim 38 also requires "for each code downloaded to the computer system, associating a resource indicator with all threads that are executed directly by the downloaded code and all threads that are initiated by the downloaded code, wherein all of the threads that are executed directly by the downloaded code and all threads that are initiated by the downloaded code are defined as a set of related code." Claim 38 further recites "updating the resource indicator when the related code increases or decreases its collective resource usage of the particular resource." In other words, all of the threads executed on behalf of each code downloaded to a computer system is tracked by a single resource indicator. This feature would allow implementation of procedures with respect to each set of threads executed on behalf of each downloaded code when resource usage exceeds a particular limit, for example, for such related threads. Independent claim 60 is directed towards a computer readable medium having computer code for performing similar operations as claim 38.


The primary reference Culbert appears merely to teach tracking of resource usage for each task. See Column 8, Lines 38-59. However, Culbert fails to teach or suggest tracking resource usage for all threads which are executed or initiated for each code downloaded to a computer system with a single resource indicator, in the manner claimed. Accordingly, threads from a same downloaded code cannot be dealt with together when one or more of them is misbehaving (*e.g.*, by spawning denial of service attacks executed on behalf of a bad downloaded applet), as can be practiced with embodiments of the present invention. The

secondary references also fails to teach or suggest such limitation. For example, although the reference Judge discloses resource management in a Java system, Judge fails to teach or suggest tracking resource usage for all threads which are executed or initiated for each code downloaded to a computer system with a single resource indicator, in the manner claimed. Accordingly, it is respectfully submitted that claims 38 and 60 are patentable over the cited art.

The Examiner's rejections of the dependent claims are also respectfully traversed. However, to expedite prosecution, all of these claims will not be argued separately. Claims 39-69 and each depend directly from independent claims 38 or 70 and, therefore, are respectfully submitted to be patentable over cited art for at least the reasons set forth above with respect to claims 38 and 60. Further, the dependent claims require additional elements that when considered in context of the claimed inventions further patentably distinguish the invention from the cited art. For example, claims 57 and 70 further require that "determining which threads are to be defined as the set of related code based on which threads are assigned to a same protection domain." Claims 58 and 71 further require "aborting the threads of the related code when their resource indicator exceeds a maximum level." Finally, claims 59 and 72 require that "the computer system is integrated with a set top box or a navigational system." The cited references fail to teach or suggest such limitations.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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